Claims

[c1] 1. A method for distributing exhaust gases or gases which are ventilated from a crankcase or an evaporator of a combustion engine, which engine comprises a cylinder head with intake valves and an intake manifold with a flange for mounting on the cylinder head, the intake manifold is provided with at least one collecting channel which extends across each intake pipe of the intake manifold, wherein the gases are sucked from the collecting channel directly into each intake pipe through a non-return valve arranged in connection with each intake pipe, which non-return valve is controlled by pressure pulses from the intake valves.

[c2] 2. A arrangement for distributing exhaust gases or gases which are ventilated from a crankcase or an evaporator of a combustion engine having a cylinder head and an intake manifold with a flange for mounting on the cylinder head, the intake manifold being equipped with at least one collecting channel which extends across each intake pipe of the intake manifold, and the collecting channel is connected to each intake pipe of the intake manifold via outlet channels with separate non-return valves.

[c3] 3. The arrangement according to claim 2, wherein the non-return valves are located in the flange.

[c4] 4. The arrangement according to claim 2, wherein the non-return valves are located in the cylinder head.

[c5] 5. The arrangement according to claim 2, wherein the non-return valves constitute a part of a gasket between the flange and the cylinder head.

[c6] 6. The arrangement according to claim 5, wherein the non-return valves comprise membranes that are resiliently and sealingly arranged against at least one opening emerging from the collecting channel.

[c7] 7. The arrangement according to claim 6, wherein each membrane is formed in one piece with the gasket.

[c8] 8. The arrangement according to claim 7, wherein the gasket is made as a double steel gasket, comprising a first gasket with a membrane that is in contact with the cylinder head, and a second gasket that is in contact with the intake manifold and is attached to the first gasket.

[c9] 9. The arrangement according to claim 6, wherein the gasket is made of steel. or a fiber material.

[c10] 10. The arrangement according to claim 6, wherein the gasket is made of fiber material.

[c11] 11. The arrangement according to claim 4, wherein the non-return valves are ball valves.

[c12] 12. The arrangement according to claim 4, wherein the non-return valves are solenoid valves which are controlled by the electronic control system of the engine.

[c13] 13. The arrangement according to claim 2, wherein the collecting channel is made as a through bore in the flange.

[c14] 14. The arrangement according to claim 2, wherein the collecting channel is made as a milled recess in the flange equipped with a covering lid.

[c15] 15. The arrangement according to claim 2, wherein the collecting channel is made as a cavity cast in the flange.

[c16] 16. The arrangement according to claim 2, wherein the flange is integrated with the intake manifold.

[c17] 17. The arrangement according to claim 2, wherein the flange is mounted as a separate unit between the intake manifold and the cylinder head.

[c18] 18. The arrangement according to claim 2, wherein the collecting channel is mounted as a separate unit on the intake manifold.

[c19] 19. A arrangement for distributing exhaust gases or gases which are ventilated

from a crankcase or an evaporator of a combustion engine, said arrangement comprising:

an engine having a cylinder head and an intake manifold mounted on the cylinder head at a flange;

the intake manifold has at least one collecting channel that extends across each of a plurality of intake pipes of the intake manifold; and

the collecting channel being connected to each of said plurality of intake pipes of the intake manifold via outlet channels and separate non-return valves being associated with each of said outlet channels.